

Product Specification

24-Port 10/100/1000Mbps Gigabit Ethernet Switch

GSW-2401

Version 6.0

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Change History:

Revision:	Date:	Author:	Change List
Version 1.0	2005/05/05	Marc Liao	Initial Release
Version 2.0	2006/08/07	Marc Liao	Hardware change
Version 3.0	2008/06/23	Marc Liao	Hardware change
Version 4.0	2009/08/28	Marc Liao	Hardware change <ul style="list-style-type: none"> - Change chip/ PHY from Marvell to Broadcom - LED indicator change
Version 5.0	2012/8/20	Marc Liao	Hardware change <ul style="list-style-type: none"> - Chipset/ PHY changed - RJ-45 Port & LED location change - Power Supply Unit change - Fan less designed
Version 6.0	2014/9/15	Marc Liao	Hardware change <ul style="list-style-type: none"> - Chipset changed - Power LED location change

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1. PRODUCT DESCRIPTION



Cost-Effective Gigabit Solution for Enterprise Backbone and Data Center Networking

PLANET GSW-2401 Gigabit Ethernet Switch provides 24 RJ-45 10/100/1000Mbps ports for high-speed network connectivity. It can automatically identify and determine the correct transmission speed and half / full duplex mode of the attached devices with its 24 Gigabit ports that support 9K jumbo frame feature. Therefore, the GSW-2401 can handle extremely large amounts of data transmission in a secure topology linking to a backbone or high-power servers.

High Performance

The GSW-2401 provides high performance switch architecture that is capable of providing the non-blocking switch fabric and wire-speed throughput as high as 48Gbps, which greatly simplifies the tasks of upgrading the LAN for catering to increasing bandwidth demands. Besides, the Flow Control function of the GSW-2401 enables routers and servers directly connect to the Switch for fast and reliable data transfer.

All RJ-45 copper interfaces of the GSW-2401 support 10/100/1000Mbps auto-negotiation for optimal speed detection through RJ-45 Category 6, 5 or 5e cables. It also supports standard for auto-MDI/MDI-X that can detect the type of connection to any Ethernet device without requiring special straight or crossover cables.

Excellent Traffic Transmission

The GSW-2401 supports Store-and-Forward forwarding scheme to ensure low latency and high data integrity, which eliminates unnecessary traffic and relieves congestion on critical network paths. With an intelligent address recognition algorithm, the GSW-2401 could recognize up to 8K different MAC address. The high data throughput and 48Gbps internal switching fabric makes it ideal for most Gigabit environments, especially when network upgrades to a Gigabit environment.

Fanless Design

The GSW-2401 successfully reduces substantial power consumption with the fanless and noiseless design collocating with the effective cooler. Therefore, the GSW-2401 is able to operate stably and quietly in any environment without affecting its performance.

The GSW-2401 Switch positioning is shown as below:

Backbone Switch

With up to 48 Gigabits per second of non-blocking switch fabric, the GSW-2401 can easily provide the high bandwidth required for both now and future.

Server Farm Switch

Provide 24 Gigabit Ethernet ports, the GSW-2401 is ideal to use as a server farm switch connecting to your servers and powerful desktops.

2. PRODUCT FEATURES

Physical Port

- 24-Port 10/100/1000Base-T Gigabit Ethernet ports
- Supports auto MDI/MDI-X function

Layer 2 Features

- Complies with IEEE 802.3, 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T Ethernet standards
- Features Store-and-Forward mode with wire-speed filtering and forwarding rates
- Integrated address look-up engine, supporting 8K absolute MAC addresses
- 9K Jumbo packet support
- IEEE 802.1Q VLAN packet transparent support
- IEEE 802.3x flow control for full duplex operation and backpressure for half duplex operation
- Hardware based 10/100Base-TX, half / full duplex and 1000Base-T full duplex mode, flow control and auto-negotiation
- Automatic address learning and address aging
- Supports CSMA/CD protocol

Hardware Features

- 100~240V AC, 0.5A, 50~60Hz universal power input
- FCC, CE class A compliant

3. PRODUCT SPECIFICATION

3.1 MAIN COMPONENT

Switch ASIC: Broadcom BCM53334 (Built-in 16-Port Gigabit PHY) x1

PHY: Broadcom BCM50282 (8-Port Gigabit Ethernet Transceiver) x1

3.2 FUNCTION SPECIFICATION

Product	GSW-2401
Hardware Specifications	
Hardware Version	Version 6
10/100/1000Base-T MDI/MDIX Ports	24
Throughput (packet per second)	35.7Mpps
Switch Fabric	48Gbps / non-blocking
Switch Processing Scheme	Store-and-Forward
Address Table	8K entries
Switch Packet Buffer	512 KB
Jumbo packet size	9K
Flow Control	Back pressure for half duplex, IEEE 802.3x pause frame for full duplex
Standards Conformance	
Standards Compliance	IEEE 802.3 (Ethernet) IEEE 802.3u (Fast Ethernet) IEEE 802.3ab (Gigabit Ethernet) IEEE 802.3x (Full-Duplex Flow Control)

3.3 PHYSICAL SPECIFICATIONS:

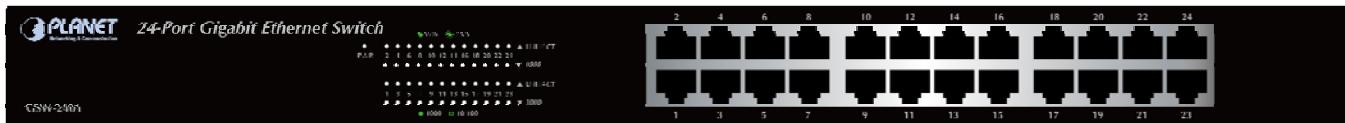
Dimensions:

440 x 180 x 44mm (W x D x H), 1U height

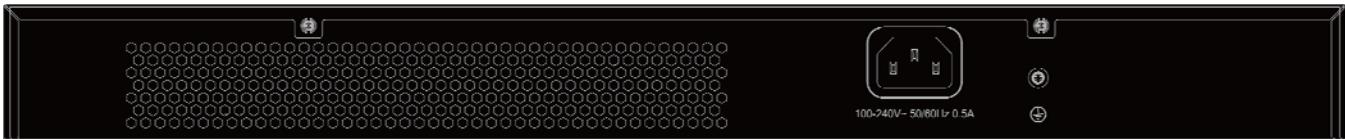
Weight:

2kg

Front Panel:



Rear Panel:



LED Definition

System

LED	Color	Function
PWR	Green	Lights to indicate that the Switch has power.

Per 10/100/1000Mbps port

LED	Color	Function
LNK / ACT	Green	Lights to indicate the link through that port is established successfully. Blinks indicate that the Switch is actively sending or receiving data over that port.
1000	Green	Lights to indicate the port is run at 1000Mbps. Off: indicate that the port is operating at 10/100Mbps.

3.4 ENVIRONMENTAL SPECIFICATION

Operating:

Temperature: 0°C ~ 50 degrees C
Relative Humidity: 5% ~ 95% (non-condensing)

Storage:

Temperature: -10°C ~ 70 degrees C
Relative Humidity: 5% ~ 95% (non-condensing)

3.5 ELECTRICAL SPECIFICATION

Input Voltage:	100 - 240V AC, 50 - 60Hz, 0.5A.	
	Auto-sensing.	
Power Consumption	110V: 10.6 watts	36BTU
(System on):	220V: 11.8 watts	40BTU
Power Consumption	110V: 13.2 watts	45BTU
(Ethernet Full Load no operating):	220V: 14 watts	47BTU
Power Consumption	110V: 13.2 watts	45BTU
(Ethernet Full Load operating):	220V: 14 watts	47BTU

3.6 REGULATORY COMPLIANCE

FCC Part 15 Class A, CE

3.7 REALIABILITY

MTBF > 50,000 hrs @ 25 degrees C

3.8 BASIC PACKAGING

- GSW-2401 x1
- User's Manual x1
- Power Cord x1
- Rubber Feet x4
- Two Rack-Mounting Brackets with Attachment Screws x8

3.9 PACKING DIMENSION

Dimension: 520mm (W) x 550mm (D) x 265mm (H)

Weight: TBD (Gross Weight)

5pcs in one carton